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**TEIGNMOUTH  
URBAN & PORT SANITARY DISTRICTS.**

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# **Annual Reports**

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OF THE  
**MEDICAL OFFICER OF HEALTH,**  
AND OF THE  
**SANITARY INSPECTOR.**

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**Report on the Administration of the Factory  
and Workshops Act.**

—○—  
**Meteorological Record.**

—○—  
**THE SURVEYOR'S REPORT ON THE  
WATER SUPPLY.**

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**. . 1905. . .**

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# REPORTS OF THE MEDICAL OFFICER OF HEALTH, FOR THE YEAR 1905.

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## Teignmouth Urban Sanitary District.

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### Vital Statistics.

**Population.** In estimating the population at the middle of the year, I have, as on former occasions, rejected the authorised official method of assuming a continuance of the previous intercensual variation at the same rate, and have been guided rather by my observation of changing local conditions. The estimate thus arrived at is 8,580, an increase of 30 over that of 1904, and distributed as follows :—West Teignmouth, 4,810, an increase of 22 ; East Teignmouth, 2,500, an increase of 8. Shaldon, 1,270, unchanged.

The Natural Increment (excess of Births over Deaths) was 43.

Table I. exhibits the Vital Statistics for the whole District during 1905 and the ten previous years.

TABLE I.

*Vital Statistics of Whole District during 1905 and previous years.*

## URBAN DISTRICT OF TEIGNMOUTH.

YEAR.	Population estimated to middle of each year	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES.		DEATHS IN PUBLIC INSTITUTIONS.	Deaths of Non-residents registered in Public Institutions in District.	Deaths of Residents registered in Public Institutions beyond District.	DEATHS AT ALL AGES. NETT.	
		No.	Rate.*	No.	Rate per 1,000 Births reg'd.	No.	Rate.*				No.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1895	8309	176	21.18	29	164.77	154	18.53	3	1	1	154	18.53
1896	8342	172	20.62	21	122.10	126	15.10	5	3		123	14.74
1897	8375	170	20.30	25	147.06	136	16.24	3	1		135	16.12
1898	8408	140	16.65	16	114.29	113	13.44	5	1	1	113	13.44
1899	8441	169	20.02	21	124.26	142	16.82	3	1		141	16.70
1900	8474	164	19.35	24	146.34	131	15.46	3	0		131	15.46
1901	8508	153	18.98	17	111.11	134	15.75	2	0	3	137	16.10
1902	8520	146	17.14	12	82.19	117	13.73	11	2	11	126	14.76
1903	8540	133	15.50	17	127.82	146	17.08	6	4	4	146	17.08
1904	8550	147	17.19	23	156.46	118	13.80	7	3	8	123	14.38
Averages for yrs. '95-'04.	8446.7	157.0	18.64	20.5	129.64	131.7	15.59	4.8	1.6		132.9	15.73
1905	8580	173	20.16	23	132.95	123	14.33	2	0	7	130	15.15

\* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water) ... 1635.

Total population at all ages	...	8502	} At census of 1901.
Number of inhabited houses	...	1905	
Average number of persons per house	...	4.463	

The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.



By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

In the present instance "Non-residents" (Column 10) are absent. "Residents" (Column 11) include seven persons who died in the Union Workhouse at Newton Abbot, and who belonged, 5 to West Teignmouth, 1 to East Teignmouth, and 1 to Shaldon.

The totals in Column 12 and the corresponding Rates in Column 13 may be taken as accurate for the last 5 years, 1901-1905; but during the previous 6 years, 1895-1900, they must be regarded as only approximate, owing to the incompleteness of Column 11.

In Table I. the following points are noteworthy:—

**Births and Birth Rate**, (Columns 3 and 4), both show a decided advance. The total is higher than that of any year in the decade, and the rate exceeds the average by 1·52.

**Infantile Mortality.** While the total number of deaths under one year (Column 5) appears high, it is not so relatively to the increased number of Births, and the *Infantile Death Rate* (Column 6) closely approximates to the decennial mean.

**Death Rate** (Column 8) is a favourable one, and its figures (14·33) are, with three exceptions, the lowest in the Table. In the total of 123 deaths are included 5 of visitors, and deducting these the Death Rate falls to 13·75. Such a correction is always necessary in order to arrive at the true local death rate of districts such as this which are largely resorted to by invalids.

The nett Death Rate (Column 13) would contrast even more favourably than it does with the 10 years' average, were the latter not lowered owing to the missing figures in Column 12.

TABLE II.

*Vital Statistics of separate Localities in 1905 and previous years.*

URBAN DISTRICT OF TEIGNMOUTH.

Names of Localities.	1. West Teignmouth.				2. East Teignmouth.				3. SHALDON.			
Year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>
1895									1279	26	27	3
1896									1278	27	25	5
1897									1276	27	25	4
1898									1275	17	17	3
1899									1273	28	19	2
1900									1272	14	22	3
1901	4756	95	78	13	2482	41	44	4	1270	17	15	0
1902	4765	104	73	10	2485	24	34	3	1270	18	19	0
1903	4780	101	92	13	2490	20	35	1	1270	12	19	3
1904	4788	106	74	19	2492	21	28	3	1270	20	21	1
Average of years '95-'04.	4772	101·5	79	13·75	2487	26·5	35	2·75	1273·3	20·6	20·9	2·4
1905	4810	120	73	18	2500	33	32	3	1270	20	25	2

Table II. distributes the Births, total Deaths, and Infantile Deaths among the three Parishes comprised within the District. Deaths of 7 “residents” occurring in the Workhouse are included in sub-columns *c* (5 under West, 1 under East, and 1 under Shaldon); and those of two “residents” occurring in the Teignmouth Hospital are also allotted to their respective localities of origin (1 to West, and 1 to Shaldon).

Prior to 1901 the separate figures for the parishes of West and East Teignmouth are not available, and the averages for these localities have therefore been calculated for only 4 years (1901-4). So far as they go they appear to indicate an almost identical increase in births and diminution in deaths in the two parishes, while West Teignmouth, with its greater proportion of poor, as usual furnishes more than its due share of the infantile deaths.

The distribution of births and deaths under localities supplies the data for calculating the various rates for the village of Shaldon; these are:—Birth Rate, 15·75; the same as in 1904 and almost identical with the average. Death Rate, 19·65\*; shewing a decided rise. Infantile Death Rate, 100, compared with a mean of 116.

Similarly, for the town of Teignmouth (excluding Shaldon) the Birth Rate is 20·93; Death Rate, 14·36\*; Infantile Death Rate, 137.

In the following Table IV. the particulars of the year's mortality are set forth in greater detail. The deaths in the Workhouse and in the Teignmouth Hospital are included in the columns for the several age groups (Columns 2-8), and are also allotted to their localities of origin (Columns 9-11). The two deaths in the Teignmouth Hospital of "residents" are the only ones entered in Column 16.

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\* This is a "*Nett* Death Rate," comparable with that in Column 13, Table I, 15·15 for the District as a whole.



TABLE IV.

*Causes of, and Ages at, Death during Year 1905.*

## URBAN DISTRICT OF TEIGNMOUTH.

CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES.							DEATHS IN LOCALITIES (at all ages.)			DEATHS IN PUBLIC INSTITUTIONS.
	All ages	Under 1	1 & under 5	5 & under 15	15 & under 25	25 & under 65	65 & upwards	West T'nm'uth	East T'nm'uth	Shaldon	
Small-pox ...											
Measles ...	6	1	5					5		1	
Scarlet fever ...											
Whooping-cough ...											
Diphtheria and mem- branous croup ...											
Croup ...											
Fever { Typhus ...											
Enteric ...	1					1				1	
Other continued											
Epidemic influenza ...	1						1	1			
Cholera ...											
Plague ...											
Diarrhoea ...	1	1						1			
Enteritis ..	1	1						1			
Puerperal fever ...											
Erysipelas ...											
Other septic diseases ...	2			1		1		1	1		1
Phthisis ...	7				1	6		3		4	
Other tubercular di- seases ...	3	1		1		1		2		1	
Cancer, malignant di- sease ...	7				1	5	1	3	1	3	
Bronchitis ...	17	6	3			4	4	11	3	3	1
Pneumonia ...	2		1			1		1	1		
Pleurisy ...	2					1	1	2			
Other diseases of Res- piratory organs ..	2						2	2			
Alcoholism {											
Cirrhosis of liver {	3					3		1		2	
Venereal diseases ..	1	1						1			
Premature birth ...	3	3						2	1		
Diseases and accidents of parturition ...											
Heart diseases ...	22			1	1	8	12	9	5	8	
Accidents ...											
Suicides ..											
Acute Rheumatism ...	1					1			1		
... ..											
... ..											
All other causes ...	48	9	2		1	9	27	27	19	2	
All causes ...	130	23	11	3	4	41	48	73	32	25	2



In connection with the above classification of deaths, the following points may be noted :—

- (a) The mortality during the first quarter of the year was high, nearly half of it being attributable to heart diseases, and the bulk of the remainder to diseases of the respiratory organs. An unusually small number of deaths during the third quarter more than compensated for the excess in the winter months.
- (b) **Enteric Fever** re-appears after an absence of 2 years ; the solitary death occurred in Shaldon, the first from any infectious disease in that village since 1899.
- (c) **Diarrhœa** (1 death), compares favourably with the 1904 total (5 deaths). The case is correctly classified.
- (d) **Enteritis**. The single death, of an infant, certified as due to “Epidemic Enteritis” occurred in August.
- (e) **Phthisis** (7 deaths) is below the average, (9·6), and presents a marked improvement on the previous year’s record of 20 deaths, more than 50 per cent. (4 deaths) are attributable to Shaldon.
- (f) **Cancer** (7 deaths), is also below the mean (8·0).
- (g) **Measles**, with 6 deaths, compared with a decennial mean of 1·2, occupies a prominent place in the Table ; one death occurred in Shaldon.
- (h) No deaths were attributed to violent causes.
- (i) The longevity of the inhabitants of Shaldon which has been frequently commented on in previous reports, is, this year, not evident.

**The Zymotic Mortality** is made up of 6 deaths from Measles, 1 from Enteric Fever, 1 from Diarrhœa and 1 from Enteritis, and gives, for the whole district, a Zymotic Death Rate of 1·05. Deducting the 2 Shaldon cases, the rate for the town of Teignmouth becomes 0·96. I append the usual Table shewing (for Teignmouth alone) the deaths from the six chief Zymotic Diseases in 1905 and in each of the previous 10 years ; the total mortality and the death rate are both slightly in excess of the corresponding means ; but the main factor is measles, a disease not directly amenable to sanitary influences. For the third year in succession there was no death from enteric fever.

TABLE A.

*Shewing, for the Town of Teignmouth only, the Number of Deaths from the Principal Zymotic Diseases, and the Zymotic Death Rates, in 1905 and in the previous Ten Years.*

YEAR.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Enteric Fever.	Diarrhœa.	Total.	Zymotic Death Rate.
1895	5			1	2	3	11	1·59
1896					1		1	0·14
1897		1		2	2	5	10	1·45
1898					3		3	0·43
1899	2			6		6	14	2·00
1900	1			1		2	4	0·53
1901				2	1		3	0·35
1902					2		2	0·23
1903	4	1					5	0·69
1904			1			5	6	0·82
Av'rage for 10 years 1895-04	1·2	0·2	0·1	1·2	1·1	2·1	5·9	0·82
1905	5					2	7	0·96

Table V. which here follows, is a new one, required by the Local Government Board. It sets forth in greater detail the particulars of the year's Infantile Mortality. The deaths from Diarrhœa, Enteritis, Atrophy and Convulsions, a total of 9, were in all probability of artificially fed children, and as such may be regarded as results of the pernicious and increasing custom among mothers of failing in the first and highest of their maternal duties. More than half the children reared by artificial means die before they are two years old.

The distribution of the 9 illegitimate births was :—5 in West Teignmouth, 2 in East Teignmouth, and 2 in Shaldon.

TABLE V.

*Infantile Mortality during the Year 1905. Deaths from stated Causes in Weeks and Months under One Year of Age.*

URBAN DISTRICT OF TEIGNMOUTH.

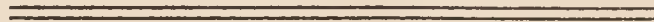
CAUSE OF DEATH.	Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under One Year
All Causes { Certified .. Uncertified	3		2	3	8	5	1			1	1	3	2		2		23 0
Measles ..																	1
Diarrhoea ..				1	1											1	1
Enteritis ..					3							1					1
Premature Birth ..	3																3
Congenital Defects ..			1		1												1
Atrophy, Debility, Marasmus ..						4					1						5
Other Tuberculous Diseases ..										1							1
Syphilis ..													1				1
Meningitis ..															1		1
Convulsions ..			1														2
Bronchitis ..				2	3	1						1	2				6
	3		2	3	8	5	1			1	1	3	2		2		23

Births in the Year :--Legitimate 164, Illegitimate 9. Deaths from all Causes at all Ages 130.  
Population, estimated to middle of 1905, 8580.

The usual Table comparing the Vital Statistics of this district with those of the whole of England and Wales is here given.

TABLE B.

	Birth Rate	Death Rate	Zymotic Death Rate	Infantile Death Rate
Teignmouth ...	20·93	14·36	0·96	137
Shaldon .. ...	15·75	19·65	1·57	100
Teignmouth U.S.D.	20 16	15·15	1·05	133
England and Wales	27·2	15·2	1·52	128
Rural ditto ...	26·3	14·9	1·09	113
76 Great Towns ...	28 2	15·7	1·88	140
141 Smaller Towns	26·9	14·4	1·50	132



## Infectious Disease.

Table III, which, as usual, I place here, gives the number of cases of Infectious Disease notified in the whole District, with their distribution in the several localities.



TABLE III.

*Cases of Infectious Disease notified during the year 1905.*

URBAN DISTRICT OF TEIGNMOUTH.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.			NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.		
	At all Ages	At Ages.—Years.					West T <sup>m</sup> mouth	East T <sup>m</sup> mouth	Shaldon.	West T <sup>m</sup> mouth	East T <sup>m</sup> mouth	Shaldon.
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65						
Small-pox												
Cholera												
Diphtheria	9	1	6	1	1		4	4	1			
Membranous croup												
Erysipelas	5			1	2	2	3	2				
Scarlet fever	7	1	6				4	2	1	4	2	
Typhus fever												
Enteric fever	12	1	7		4		10		2			
Relapsing fever												
Continued fever												
Puerperal fever	2				2		2					
Plague												
Phthisis (voluntary)	7		1	2	4		7					
Totals	42	3	20	4	13	2	30	8	4	4	2	

NOTES.—The localities adopted for this table are the same as those in Tables II. and IV.

For purposes of comparison, the customary Table, dealing with Notifications during the previous ten years, is also given.

TABLE C.

*Shewing the Number of New Cases of Notifiable Disease in the whole District, in the Year 1905, and in the previous Ten Years*

YEAR	Diphtheria	Scarlatina	Erysipelas	Continued Fever	Enteric Fever	Puerperal Fever	Totals	Phthisis (voluntary since 1899)
1895	3	6	6	1	14		30	
1896		23	4		13		40	
1897	1	24	2		16	1	44	
1898		6	7		18		31	
1899		2	2		5		9	
1900		4	4		3		11	1
1901	3	4	4		5	2	18	7
1902		11	4		8	1	24	1
1903	3	33	8	1	5	2	52	11
1904	2	1	6		12		21	10
Average for 10 years 1895-1904	1·2	11·4	4·7	0·2	9·9	0·6	28·0	
1905	9	7	5		12	2	35	7

The total for 1905 exceeds the average by 25 per cent, and while, with the exception of Scarlatina, each item shares in the excess, the chief factor was Diphtheria which was more prevalent than in any year since the adoption of the Notification Act. The following facts in connection with the incidence of infectious disease may be noted.

**Diphtheria.** The 9 cases fall into two distinct groups as regards distribution in time, 5 being notified between April 2nd and May 19th, and 4 between October 29th and November 17th. Of the former group, the first case, in Shaldon, occurred in a house where there had been a similar case in 1904; but its origin could not be traced. The last remark applies also to the second case. The third and fourth were two children of one family, who surreptitiously drank from a cistern in direct connection with a W.C.: the water in this cistern was very impure and contained numerous pathogenic organisms, including bacillus coli and "a bacillus of the diphtheria type, though

somewhat larger than the Klebs Loeffler, and not taking up Neisser's stain so well." This is an observation of great interest, indicating as it does the extreme likelihood that the possibly specifically contaminated water caused the disease. The fifth case was very mild and presented few of the clinical symptoms of diphtheria, but bacteriological examination established the diagnosis.

Of the second group:—One was imported, the specific bacillus being found a fortnight after a sore throat contracted elsewhere, the true nature of which had not been recognised at the time. Of the remainder, two occurred in houses where the drains had quite recently been opened for examination and repair; a coincidence which has been so frequent as to arouse the gravest suspicion of sewer gas poisoning as a *vera causa* of diphtheria: in my own experience in investigating outbreaks, this factor has been more frequently in evidence than any other. The fourth case, in the same family as the third, undoubtedly arose by direct infection. Save in this instance, and in the other, alluded to above, where two members of a family were affected, direct communication as a means of origin was disproved. The diagnosis was established by bacteriological examination in each case, and the mortality was nil.

An apparent increase in the prevalence of this disease is undoubtedly explained in part by the greater frequency with which the aid of bacteriology is invoked in doubtful circumstances; many cases being thus detected which would otherwise escape notice. Examples of two such have been mentioned above.

**Scarlatina.** A single case in January, a group of five in September, and an imported case at the end of December, make up the total of 7. The first 6 were all removed to the Isolation Hospital and their dwellings disinfected, in accordance with the practice which, locally, has been found so successful in checking outbreaks of this disease. In one instance, where the patient was an inmate of a house occupied by a registered midwife, special precautions were taken, with satisfactory results.

**Enteric Fever.** Of the 12 cases, 2 more than the average yearly number, 10 were notified in West Teignmouth and 2 in Shaldon; they were distributed:—2 in the second quarter, 6 in the third, and 4 in the fourth, these last 10 forming one group occurring in the months of September and October, and composed principally of children, dwelling within a somewhat limited area in which, however, there was no single condition common to all the sufferers.



In the solitary fatal case, a Shaldon one, the patient had been in the habit of eating raw cockles, and during his illness lacked skilled nursing and adequate accommodation; unfortunately it was impossible, for reasons which will be given later, to remove him to hospital. Of the remaining cases, one was imported, and one originated by direct contagion. Examinations of the affected dwellings revealed, in nearly every instance, sanitary defects which, though mostly of a minor character, were effectually remedied.

It is worthy of note that there has been no death from Enteric Fever in the town of Teignmouth since 1902; and that in the same area, whereas the number of notified cases during the five years, 1895-1899, was 66, or an annual average of 13·2, the number during the next five years, 1900-1904, was only 33, an annual average of 6·6; such a diminution of this filth disease by exactly one half affords unmistakable evidence that those general sanitary conditions upon which the health of the people depends have undergone considerable improvement.

In investigating the causation of this disease, the persistence of the bacillus coli communis in the Coombe Brook water, which supplies the "Low Level," cannot be ignored: typhoid is almost unknown on the "High Level" which derives its water supply from other sources. I look forward with confidence to a marked diminution in the incidence of this disease, when, in the near future, the Coombe Brook, as a source of public water supply, is abandoned.

**Phthisis** appears in the mortality tables (Table IV) as responsible for 7 deaths, as against a decennial average of 9·6, and other Forms of Tuberculosis caused 3 deaths. There is overwhelming evidence that the main factor in the spread of consumption is the dried expectoration of the sick, which, inhaled as dust by the healthy, sows in their lungs the seeds of the disease; it is therefore only by prevention and destruction of such death-dealing dust that we can hope to lessen the ravages of a plague, which, in one or other of its forms, is responsible for no less than one seventh of the total mortality of all civilised countries (Hirsch).

Locally, an attempt has been made to check the dangerous habit of indiscriminate spitting by affixing to each seat upon the sea-front a metal plate, bearing the words, "To prevent Consumption, don't Spit."

Immediate information of fatal cases is furnished by the Registrar of Deaths, and thorough disinfection of the contaminated rooms is promptly carried out in every case, save when,



as in one recent instance, it is absolutely negatived by an ignorant and obstinate householder. As far as possible, disinfection is also carried out after removals, but this safe-guard is regrettably limited in application, owing to the paucity of information obtainable as to the houses occupied by the sick. Voluntary notification, invited and paid for by the Sanitary Authority, gives no promise of more general adoption, only 7 notifications having been received during the past year, from but two medical practitioners.

The County Council, after careful consideration of the evidence given at the Local Enquiry held in 1904, arrived at the conclusion that they would not be justified in making an Order constituting the whole County a Hospital District for the purpose of dealing with Pulmonary Phthisis.

The question of contributing from the District Rate an annual subscription to the Didworthy Sanatorium has been under consideration, but has been postponed to a more convenient opportunity. It merits the renewed attention of the Sanitary Authority.

**Measles** was prevalent in the second quarter of the year, and caused 6 deaths, an unusually large number; the fatal issue in every case being due to pulmonary complications. This disease is responsible for some 15,000 deaths in England and Wales each year, and until it is regarded with more respect and treated with greater care by those responsible for the children affected, there is no prospect of this high mortality diminishing. The advances in sanitation which have so markedly lessened the death rate from most infectious diseases are without any effect on measles, which is even more fatal now than it was 70 years ago.

**Isolation Hospital.** Bitton House, purchased by the Sanitary Authority in 1904, has done duty in this respect during the past twelve months; but the size of the building and considerations of economy have caused the disinfection after each occupancy to be of such an incomplete character that I have not felt justified in admitting any disease save Scarlatina, of which six cases have been isolated, and, after an average stay of 49 days in hospital, have been discharged, cured. It is much to be regretted that the ample vacant space in Bitton House could not with safety be made available for other diseases: inability to isolate enteric fever having undoubtedly contributed to the issue of the solitary fatal case, whose surroundings at home were altogether unfavourable.

The new Isolation Hospital, a building in every respect up-to-date, and containing accommodation for both sexes suffering from two diseases, is rapidly approaching completion, and should be ready for occupation in April. It is very advisable that such an institution should be administered in a systematic and businesslike manner: various questions in connection with its management need consideration and will be dealt with by a small committee specially appointed for the purpose.

**Disinfection.** One of Reck's Disinfectors (C. 8) has been purchased and will be fixed in the Isolation Hospital outbuildings.

An outbreak of smallpox in June, among the workmen employed on the Paignton Waterworks in the neighbourhood of Holne, on Dartmoor, occasioned some anxiety, as a number of Teignmouth men employed there were in the habit of returning to their families at each week-end. The contractor, Mr. Best, who ably assisted me in every way, was successful in stopping this weekly migration, the men remaining on the Moor until all risk of infection was over; and the two members of his staff who were compelled to visit this district were successfully revaccinated by me. Arrangements, similar to those adopted on a previous occasion, were made for the erection of a complete tent hospital within 24 hours, if required. Fortunately no such necessity arose, the defensive precautions outlined above being successful.

A circular letter dealing with Cerebro-Spinal Fever was received in August from the Local Government Board. No case of this disease has been met with in the district.

**Vaccination.** I regret that, owing to my inability to obtain the figures from the Vaccination Officer, I am obliged to discontinue the series of records under this heading.

Weekly returns of new notifications of infectious disease have been regularly forwarded to the Local Government Board from whom, in due course, the tabulated statistics for the whole country have been received in return.

The increasing custom among Medical Officers of Health of corresponding with their brother officials in other districts, in connection with the suspected origin of cases of infectious disease, serves many useful purposes.



## Water Supply.

The customary detailed statement by the Surveyor on the year's water supply will be found at the end of this report. It appears from his figures that the consumption per head per diem was: On the Low Level, 20·08 gallons (in 1904, 19·1 gallons); on the High Level, 19·71 gallons (in 1904, 21·5 gallons); in Shaldon, 20·62 gallons (in 1904, 20·0 gallons).

The maintenance of the supply at this level, in a very dry year, (the total Rainfall on the Den was only 26·93 inches, against an average for 30 years of 33·04 inches), and this too with the borehole pump at Mylor disabled, reflects the greatest credit upon the Surveyor and his staff, to whose care and attention alone is such a brilliant result due. But a supply of 20 gallons per head per diem is, with an intermittent service, clearly inadequate; and the large proportion drawn from the Coombe Brook, whose purity is never above suspicion, cannot be regarded as satisfactory.

The supply to the Low Level has been much facilitated by the discovery and stoppage of a leak in the main which was allowing some 25,000 gallons per diem to run to waste: while the restored integrity of the Hazeldown Reservoir has greatly aided the High Level.

Chemical analysis of the various supplies have given uniformly satisfactory results, and in the High Level and Shaldon districts the water is of a very high degree of purity; but the presence of the bacillus coli communis and the bacillus enteritidis sporogenes in the Coombe Brook water indicates manurial pollution, which though slight in extent is fairly constant. This fact emphasises in the most decided manner the need for abandoning the use of this water for domestic purposes at the earliest possible moment, a course to which the Sanitary Authority has pledged itself by resolution.

No effort has been spared to maintain this brook water at the highest possible pitch of purity. New weirs and catchpits have been constructed at the intake, and 24 hours' notice is given by the occupier of Venn Farm before opening the mill leat. But the stream, largely fed by surface drainage from steep slopes of arable and pasture land, constantly overtakes the purifying powers of the small filter in Paddon's orchard.

The two "Hastings Polarite Filters" (Candy's), which have been in use at Mylor since 1903, have been finally purchased.

Notice is now required from plumbers and others of alterations or additions to fittings for the supply of water to any premises.

Unremitting attention has been devoted to the completion of the necessary preliminaries for obtaining a constant water supply from Dartmoor. A slight alteration in the point of junction with the Paignton main, and some minor modifications of the pipe line have been decided on, and a Local Government Board enquiry has been held as to the proposed loan of £21,830. An agreement with the Harbour Commissioners as to the laying of pipes across the bed of the river has been sealed and signed, and the work of putting in the main will be proceeded with directly the necessary loan is sanctioned.

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### Miscellaneous.

In accordance with the regulations of the Local Government Board, I have made regular systematic inspections of the District, and such matters as required attention have been from time to time reported to the Sanitary Committee. I have personally inspected 37 houses.

I have regularly attended every meeting of the Council and of its Sanitary and Water Committees, and have advised my Authority upon various questions bearing on the health of the people.

I am in constant conference with the Sanitary Inspector, by whom the routine work of the Health Department is assiduously carried out. His Annual Report, hereto appended, presents in detail the results of his regular inspections, and the many important sanitary advances effected by him. As on many previous occasions, I would particularly direct attention to the progress in house sanitation indicated by the numerous improvements recorded in various details of domestic drainage; especially the increasing use of the water test, a very severe one, and the large number of inspection chambers fixed. The Inspector has also specially devoted himself to securing the better paving of back yards, with most satisfactory results. The steady perseverance in affecting reforms such as these, which Mr. Drake has consistently manifested, has been the main factor in attaining that unusually high level of house sanitation which has now for several years characterised this district; and the beneficial effect upon the health of the people must be continuous and progressive.



**Drainage.** A new 9-inch sewer, 250 yards in length, has been laid in Buckeridge Road, in connection with the Cemetery extension. A 6-inch drain, 80 yards long, in Coombe Vale. New storm water drains have been laid in Brunswick Street (20 yards of 12-inch) and in French Street (55 yards of 9-inch): these important works will obviate the not infrequent local floodings to which the streets named were liable owing to the faulty construction of the pre-existing drains.

The draining of the villas on the eastern side of the upper part of Dawlish Road needs to be systematically dealt with in order that it may be brought up to that level of excellence which characterises the town sewers generally. Plans and estimates for this work were prepared so long ago as 1903, and it ought not to be neglected; for the open ditch which at present acts as a main sewer to this small group of houses is always a potential danger and may at any time become an active one.

The ventilation of the main sewers, on the Exeter, Buckeridge, Ferndale and Woodway hills, at their highest points, is another matter which, reported on in 1903, has since escaped attention.

Systematic attention to the emptying of the Gale's Hill sewage tank only in proper relation to the ebb tide, has removed all cause of complaint in that connection.

Sundry minor repairs to the tank have been carried out, and the top of it is to be fenced in. The need for this step has been evidenced by the erection on the top of the tank, by a travelling showman, of a large tent capable of accommodating some 200 persons, beneath whose seats opened two of the ventilating grids: this dangerous practice was promptly checked, and its repetition forbidden.

The faulty main sewer of Bitton Avenue, a new street laid out less than six years ago, has been dealt with in an efficient manner by the construction of inspection and flushing chambers. In this connection the Sanitary Inspector was formally empowered to enter and examine (Public Health Act, 1875, Sec. 41) twenty-five different premises. The same Section was brought into operation in four similar cases.

Under Public Health Act, Amendment Act, Sec. 22, four notices to provide sufficient W.C.'s have been issued. Also, one similar notice under Public Health Act, 1875, Sec. 36.

Attention has been directed to improving the condition of back-yards, and the Inspector has effected the repaving of 22

which were in an insanitary state. In one instance, where the owner refused to carry out the requirements of a legal notice, the Sanitary Authority itself executed the work, and proceedings to recover the cost are now pending against the defaulting owner (Public Health Act, 1875, Sec. 251).

The Model Byelaws dealing with the paving of Yards have been under consideration, but have been rejected. It is much to be regretted that what, from a public health standpoint, must certainly be regarded as mistaken consideration for the owners of property, should have led the Sanitary Authority (though by a very small majority) to reject such a powerful instrument for improving the surroundings of the dwellings of the poor.

**Scavenging** is so methodically and efficiently carried out by the Surveyor's department that nuisance from this cause, either in the private curtilage or the public streets, is a thing of the past. 3,900 loads of house refuse have been cleared. The question of final disposal of refuse has, moreover, received much anxious consideration, the large heap round the gasometer having become intolerably offensive not only to passers-by on the main road but also to the householders in the vicinity. A field, more remote from the highway, has now been purchased, in which the town refuse can be burnt in a manner, it is hoped, objectionable to none.

**The Building Byelaws** have been systematically enforced; plans for 23 new houses, and, in 18 additional instances, for alterations to existing buildings, have been passed. A builder who had departed from the plan approved, was called upon to appear before the Sanitary Authority, and was severely admonished.

The Surveyor has been duly authorised to lay an information and to take proceedings against any builder neglecting to forward the necessary notices as required by the Byelaws.

**Dairies, Milkshops and Cowsheds** are regularly inspected, and shew a steady improvement in their sanitary condition, the Inspector's requirements being usually complied with without demur.

**Slaughter Houses** also are under the Inspector's constant supervision, and are, on the whole, well conducted, the Byelaws being observed. Four licences have been renewed, as usual for one year only, the licensee in one case being warned that,



unless his business is better conducted, further renewal will be refused. One licence has lapsed, the property having changed hands; the former holder having erected a new slaughter-house, in which all the requirements of the Authority were complied with, has been granted a licence for 12 months, upon strict conditions respecting the disposal of offal, which in the past has occasionally caused nuisance.

A proposal to provide, on the borders of the district, pens in which to confine cattle coming in from market, and thus to obviate their being driven through the streets at unsuitable hours, has been frustrated, owing to the absence of power to incur the necessary expenditure.

A suggestion to the County Council that that body should make a Byelaw as to Noisy Animals, has been negatived.

**The Sale of Food and Drugs Act** is efficiently administered by Mr. Drake, the duly appointed Inspector, whose proceedings will be found recorded in his report (*infra*).

**Housing of the Working Classes Act.** No occasion has arisen for action under Sec. 30.

**Infectious Diseases Prevention Act.** Section 14 is systematically carried out.

**Tents and Vans.** The model Byelaws have been adopted in their entirety. The wandering population who occupy such dwellings is thus brought under sanitary control, but the new regulations will, in their application, throw a large amount of labour and responsibility upon the Medical Officer of Health.

A sub-committee appointed to consider the advisability of obtaining an Improvement Act has recommended that the matter be deferred for the present on the ground of expense.

To satisfy the requirements of the Treasury, I have, at the request of the Clerk to the Burial Board, made a special inspection of the land now purchased for a New Cemetery, and have drawn up a report on the matter.

Among the improvements carried out during the year, and not already alluded to, may be mentioned:—The completion of the widening of Bitton Hill, the main western entrance to the town, to a uniform width of 36 feet. The erection of a retaining wall and railings to Bitton, and the planting with shrubs of the bank adjoining the highway. The completion, by the owner, of a new 36ft. road on the Winterbourne Estate, which road is now to be declared a public highway. The

Widening of a further portion of Coombe Road. Regulation of the materials to be used in the construction of New Streets. The special attention devoted to roads and footpath, *e.g.* Streets re-made and metalled, 19,766 super yards; Streets tar-macadamised, 3,692 yards; Cement footpaths, 950 yards; Asphalte ditto, 1,200 yards; Gravel ditto, 1,740 yards. The purchase of a sludge cart. Generally, the highways have reached a marked degree of excellence, and are very well kept.

In accordance with custom, I here reproduce from former Annual Reports a list of important matters then demanding attention, appending to each item a brief note of the progress made during the past year, and of the present position.

**Isolation Hospital.** In course of erection and approaching completion.

**Disinfector.** Delivery expected; building as above.

**Constant Water Supply.** Enquiry held as to loan of £21,830.

**Building Byelaws.** Systematically enforced.

**Dairies, Milkshops and Cowsheds.** Byelaws enforced. Steady improvement.

**Sewage Disposal.** Improved regulation of outflow; otherwise unchanged.

**Refuse Disposal.** Purchase of field on which to burn rubbish.

**Public Abattoir.** Nothing done.

I cannot conclude this, my Eighteenth Annual Report without congratulating the Sanitary Authority upon the far-sighted and progressive policy which it has now for several years consistently followed in health matters, in pleasing contrast with the inertness only too frequently manifested in the past. The immense improvement in the sanitary conditions of the district, compared with those existing eighteen years ago, can only be fully appreciated by those who, like myself, have continuously studied these conditions in their gradual evolution. Year by year, but especially of late, progress has been more marked, and the enlightened public spirit which has recently accomplished so much cannot fail, if persisted in, to raise the health of the people, ere long, to that high level which the great natural advantages of the district demand that it should reach.

F. CECIL H. PIGGOTT, B.A., M.D., and B.C., CANTAB.,  
MEDICAL OFFICER OF HEALTH.

January, 1906.



## TEIGNMOUTH PORT SANITARY DISTRICT.

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The routine sanitary administration of the Port, in accordance with the principles laid down in 1893, is systematically carried out. Vessels lying in the harbour are examined with great regularity by the Sanitary Inspector, and whenever circumstances may demand it are visited by myself in person.

I append the Inspector's Report :—

*To the Chairman and Members of the Port Sanitary Authority.*

GENTLEMEN,

During the year ended December 31st, 1905, I inspected 185 vessels, 38 of these being foreign vessels. The forecastles of 13 were found in a dirty condition, 2 of these being foreign vessels. Written and verbal notices were issued to carry out such work as was necessary, which was done. As a rule very little difficulty is experienced in obtaining compliance with notice given. The remaining vessels inspected were found in a fair condition and water storage good.

The total number of inspections and re-inspections were 198.

I am,

Gentlemen,

Yours obediently,

J. DRAKE, C.R.S.I.,

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Weekly returns of such cases of infectious disease as might occur within the Port have been regularly forwarded to the Local Government Board ; but they have been uniformly blank, no such illness having arisen during the year.

The new Isolation Hospital, with the Disinfecting Apparatus installed there, will do duty for the Port, when completed.

Earnest attention has throughout the year been devoted to the difficult question of fixing a "mooring station" for infected vessels over 130 feet in length. Several such "mooring stations" have in turn been decided upon, only to be abandoned owing to the absence of suitable buoys and the impossibility of

securing the necessary co-operation of the Harbour Commissioners. Much correspondence and prolonged personal conferences with this body finally elicited the facts that there is no place in the harbour where ships exceeding 130 feet in length can safely be moored (even if special moorings be laid down) save against the quays of the Teignmouth Quay Company, Limited, and that this is well known to masters of vessels, through the medium of the Shipping Gazette.

A special report on this matter by the Clerk and myself was duly laid before the Sanitary Authority by whom the whole question was referred to the Local Government Board, with the result that an Inspector will come down at an early date and confer with those concerned in fixing a mooring station. The assistance of this official in solving a difficult problem will be greatly valued.

Following the discussions with the Harbour Commissioners, the "mooring station" for vessels between 110 feet and 130 feet has been changed to No. 1 tier of buoys. No. 6 tier, which had been previously fixed upon, being incapable of accommodating a greater length than 110 feet.

Some modification of the arrangement hitherto existing with regard to vessels arriving from foreign ports, has been effected in accordance with proposals submitted by the Board of Customs. Instead of, as heretofore, all such vessels "bringing to" at the Boarding Station, only Infected vessels will be stopped there, all others being permitted to proceed direct to their respective places of discharge. In this Port the Boarding Stations become :—

- (1) For "infected vessels," No. 6 tier of buoys (i.e., the Mooring Station already fixed for such vessels, if under 110 feet in length).
- (2) For "non-infected vessels," their place of discharge or loading, within the harbour; here they will be at once interrogated for health purposes by the Customs officials.

As a result of a personal conference with the Collector of H.M. Customs at Exeter, and of the subsequent correspondence, the Port Sanitary Authority has requested the approval of the Local Government Board to a Local Order requiring all vessels with "dangerous infectious disorders" (viz., all those diseases scheduled under the Infectious Diseases Notification Act) to

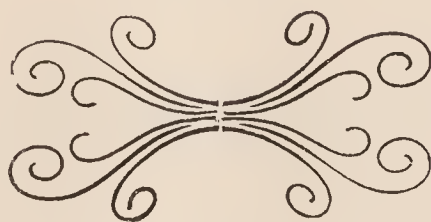
bring to at the Boarding Station, No. 6 Buoys, in the same manner as "infected vessels." Such a measure will greatly strengthen the hands of the Sanitary Authority in dealing with those forms of infectious illness which experience has shewn are far more likely to arrive within the district than the graver diseases, plague, yellow fever, and cholera.

It is eminently desirable that vessels having on board such "dangerous infectious disorders" as are covered by the proposed Local Order, should be uniformly compelled, by regulation, to fly some distinguishing flag on approaching the limits of any port.

The total amount of Shipping entering the Port during 1905 was :—Foreign, 25 Steamers, 47 Sailing Vessels; Coastwise, 188 Steamers, 228 Sailing Vessels; in all, 488.

F. CECIL H. PIGGOTT, B.A., M.D., and B.C., CANTAB.,  
MEDICAL OFFICER OF HEALTH.

January, 1906.





## FACTORY AND WORKSHOP ACT, 1901.

—:o:—

The absence of local manufactures and of the insanitary conditions common in great centres of industry render many of the provisions of this Act superfluous in this district. The Factories are very few in number ; 2 printing works, 1 steam laundry, 1 shipbuilding yard, and 1 saw mill, making up the total. Of the Workshops specified in Part II. of Schedule VI. bakehouses and shipbuilding yards alone are in existence, and there are no “tenement workshops.”

Generally the Workshops are in a satisfactory sanitary condition, and but little difficulty is experienced in securing compliance with the requests of the inspecting officials. Cleansing and limewashing have been found necessary in five instances. Air space and ventilation are sufficient, and no case of overcrowding has been detected even on premises where it had occurred previously. One laundry has been repaved. Under Part III. of Public Health Amendment Act, 1890, Sec. 22, four notices have been served to provide sufficient sanitary conveniences, and have been duly complied with. No fixed standard of sufficiency and suitability in this respect has yet been adopted locally, the few cases which arise being dealt with each on its own merits, and the necessary improvement being invariably effected in a satisfactory manner.

The Bakehouses are all of the Workshop class, they are closely supervised by the Sanitary Inspector and are well kept : no breach of the special sanitary regulations for these workshops has been detected.

The solitary underground bakehouse, duly authorised in 1904, is maintained in conformity with the Act.

Home Work. The new Order of 15th August, 1905, applies to this district only so far as it deals with umbrellas and the like. All the premises inspected comply with the requirements of the Act as regards air space, ventilation and sanitary condition generally, and in no single instance has any dangerous infectious disease occurred on any homeworkers' premises.

Outworkers' lists are sent in regularly, and are kept in the prescribed form. Twelve lists, comprising 31 outworkers, have been received. No such outworkers reside beyond the district boundaries.



The Register of Workshops needs to be accurately kept up-to-date.

What is known as the "sweating system" has no local existence.

The Inspector's Report is appended.

F. CECIL H. PIGGOTT, B.A., M.D., and B.C., CANTAB.

MEDICAL OFFICER OF HEALTH.

January, 1906.

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GENTLEMEN,

I have inspected the following workshops during the year 1905. One legal notice was served on the occupier of the boatbuilding shop at Shaldon to provide proper lavatory accommodation which was carried out. Five workshops have been cleaned and limewashed, one new cement floor to laundry has been laid, and one new drain and W.C. for a plumber's shop. All the Bakehouses have been limewashed as required twice in the year.

Bakehouses, 18 ; Dressmakers, 3 ; Laundries, 5 ; Printers, 2 ; Carpenters, 11 ; Wheelwrights, 3 ; Plumbers, 8 ; Tailors, 1 ; Upholsterers, 3 ; Cycle, 3 ; Shoemakers, 3 ; Sadler, 1 ; Painters, 4 ; Sailmaker, 1 ; Boatbuilder, 1. Making a total of 72. Twelve lists comprising 31 "outworkers" have been received. These lists have to be sent in twice a year, viz., 1st February and 1st August.

Yours obediently,

J. DRAKE, C.R.S.I.,

Inspector under the Factory and Workshops Act.

## 1.—INSPECTION.

*Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.*

Premises	Number of		
	Inspections	Written Notices	Prosecutions
Factories ... ..	3	4	
Workshops .. ..	69		
Workplaces ... ..	5		
Homeworkers' Premises			
Total ...	77	4	

## 2.—DEFECTS FOUND.

Particulars	Number of Defects			Number of Prosecutions
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts:—</i>				
Want of cleanliness ...	5	5		
Want of ventilation ...				
Overcrowding ...				
Want of drainage of floors	1	1		
Other nuisances ...				
Sanitary accommodation insufficient ... ..	3	3		
unsuitable or defective not separate for sexes	1	1		
<i>Offences under the Factory and Workshop Act:—</i>				
Illegal occupation of underground bakehouse				
Breach of special sanitary requirements for bake-houses ... ..				
Failure as regards lists of outworkers ...				
Giving out work to be done in premises which are unwholesome ..				
infected .. ..				
Allowing wearing apparel to be made in premises infected by scarlet fever or smallpox ...				
Other offences ...				
Total ...	10	10		

## 3.—OTHER MATTERS.

Class	Number	
Matters notified to H.M. Inspectors of Factories :—		
Failure to affix Abstract of the Factory and Workshop Act .. .. .		
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act	Notified by H.M. Inspectors ..	Reports (of action taken sent to H.M. Inspectors
Other .. .. .		
Underground Bakehouses :—		
Certificates granted during the year ..		
In use at the end of the year .. ..	1	
Homework :—	Number of	
<i>Lists of Outworkers :—</i>	Lists	Outworkers
Lists received .. .. .	12	31
Addresses of outworkers { forwarded to other Authorities received from other Authorities		
<i>Homework in unwholesome or infected premises :—</i>	Wearing Apparel ;	Other
Notices prohibiting homework in unwholesome premises .. .. .		
Cases of infectious disease notified in homeworkers' premises .. .. .		
Orders prohibiting homework in infected premises .. .. .		
Workshops on the Register at the end of the year	139	
Total number of workshops on Register		



# ANNUAL REPORT OF THE SANITARY INSPECTOR FOR THE YEAR 1905.

—:o:—

*To the Chairman and Members of the Urban District Council  
of Teignmouth.*

GENTLEMEN,—

I have the honour to submit for your approval my Annual Report for the year 1905.

During the year 30 informal and 24 legal notices have been served to abate nuisances, and to carry out sanitary work as required. A large proportion of legal notices were served under Sec. 41 Public Health Act, 1875.

On application, I have examined and tested the drains of 50 houses with the smoke and water test; 43 were found faulty. Notices were sent to the owners to carry out such work as requested. Drains were all laid on a bed of good concrete. The total number of tests made during the year for houses new and old were 167.

I have appended in this report a statement of work carried out through the year.

During the past year 56 properly constructed inspection chambers, furnished with iron covers and frames, have been provided to existing buildings. Very little persuasion is necessary to convince owners of the necessity of these chambers being provided.

During the year I have inspected 204 houses and premises.

The Slaughter Houses have all been periodically inspected by me during the year, and on the whole are kept clean. I have found it necessary to warn one occupier to the condition of his slaughter house. Four Slaughter House Licenses have been renewed for one year only: two at Shaldon and two at Teignmouth.

The Dairies, Cowsheds and Milkshops in the district have been inspected by me. On inspection they were found in a very fair condition.

The Common Lodging House at No. 12, Teign Street has been inspected by me at different periods during the year. I found on each visit the house in a fair condition and well conducted. I have received no complaints during the year as to the conduct of the manager.

The drains of 25 newly erected houses have been tested by me during the year, mostly with water. 53 inspection chambers have been constructed, making a total of 109 with existing buildings and new houses.

I have attended 12 meetings of the Sanitary Committee and Council, and presented 12 reports.

203 reports and letters have been written in connection with the office during the year.

One sample of milk has been obtained and submitted for analysis to Dr. Blyth, with the result it came up to the standard required.

### **Summary of Sanitary Improvements.**

Complaints received, 87 ; houses and premises inspected, 204 ; legal notices, 24 ; notices issued informal, 30 ; drains tested, 75 ; total number of tests with water and smoke, 165 ; drains choked, 32 ; inspection chambers constructed, 109 ; defective stench traps replaced with gullies, 97 ; soil pipes taken outside the house, 11 ; soil pipes made good, 2 ; old container closets abolished, 4 ; drains repaired, 12 ; drains ventilated and disconnected from sewer, 29 ; overcrowding abated, 4 ; waste pipes from scullery taken outside, 5 ; new W.C.'s provided 19 ; (Pedestal) new W.C.'s constructed, 10 ; new flushing apparatus provided, 3 ; flushing apparatus put in order, 21 ; stables paved and drained, 5 ; swine and fowl nuisances abated, 11 ; yards cemented or bricked, 22 ; offensive accumulations removed, 10 ; houses cleaned and limewashed, 5 ; houses disinfected after infectious and Phthisis cases, 28 ; scullery sink troughs provided, 10 ; total number of visits, 755 ; total number of feet of drain tested with smoke and water, 7,835.

I have the honour to be, Gentlemen,

Your obedient Servant,

J. DRAKE, C.R.S.I.,

SANITARY INSPECTOR.

## WATER SUPPLY.

### SURVEYOR'S REPORT FOR 1905.

#### STATISTICS.

Number of Houses supplied :

Low Level	..	..	1213
High Level	..	..	439
Total			1652

#### SOURCE OF SUPPLY.

Coombe Brook and Mylor Well	..	46,683,150	gallons
Haldon Spring ..	..	6,627,950	„

Total 53,311,100 „

Average daily supply per head (Population 1910) = 19·71 gallons.

#### SUMMARY.

		Total for year.		Monthly average.		Daily average.
		Gallons.		Gallons.		Gallons.
Low Level	..	39,571,500	..	3,297,625	..	108,415
High Level	..	13,739,600	..	1,144,966	..	37,643
Totals		53,311,100	..	4,442,591	..	146,058

#### LOW LEVEL SUPPLY.

MONTH.	SOURCE.		DAILY SUPPLY.		
1905	Coombe Brook and Mylor Well Galls.	Total Galls.	Max. Galls.	Min. Galls.	Average Galls.
January ...	3,312,900	3,312,900	129,100	80,800	106,867
February ..	2,692,100	2,692,100	133,000	82,000	96,146
March ...	3,365,200	3,365,200	132,800	84,500	132,800
April .	3,718,200	3,718,200	153,800	62,600	123,940
May ...	3,765,700	3,765,700	180,600	87,800	121,474
June ..	2,918,500	2,918,500	122,000	84,600	97,283
July ...	3,236,500	3,236,500	122,500	86,000	104,403
August ...	3,498,100	3,498,100	158,300	100,800	112,842
September ...	3,035,400	3,035,400	119,300	92,500	101,180
October ..	2,331,100	2,331,100	96,600	61,800	75,197
November	3,445,900	3,445,900	147,300	64,800	114,863
December ..	4 251,900	4,251,900	148,000	120,700	137,158
Totals ...		39,571,500			

Average consumption for the year :

Monthly, 3,297,625 gallons.                      Daily, 108,415 gallons.  
 Average daily supply per head (Population 5400) = 20·08 gallons.



## LOW LEVEL HOURS OF SUPPLY.

1905

January	..	..	697 $\frac{1}{4}$	hours	
February	..	..	366 $\frac{3}{4}$	„	
March	..	..	600 $\frac{3}{4}$	„	
April	..	..	720	„	(Constant)
May	..	..	600 $\frac{3}{4}$	„	
June	..	..	344	„	
July	..	..	311	„	
August	..	..	356 $\frac{1}{4}$	„	
September	..	..	314 $\frac{3}{4}$	„	
October	..	..	240 $\frac{1}{2}$	„	
November	..	..	539	„	
December	..	..	744	„	(Constant)

## MYLOR WELL.

Depth of Well	..	..	..	82ft.
Depth of water when full	..	..	..	75ft. 6in.

1905			ft.	ins.
1st January	..	..	64	5
„ February	..	..	64	8
„ March	..	..	64	8
„ April	..	..	70	10
„ May	..	..	74	6
„ June	..	..	72	9
„ July	..	..	63	4
„ August	..	..	56	4
„ September	..	..	42	7
„ October	..	..	23	10
„ November	..	..	8	0
„ December	..	..	57	3

## HIGH LEVEL SUPPLY.

1905	Total Consumption Gallons.	DAILY SUPPLY.			Yield from Haldon Spring.
		Max. Gallons.	Min. Gallons.	Average Gallons.	
January ...	1,133,800	41,000	35,200	36,574	513,909
February ...	1,051,600	42,300	36,400	37,557	432,874
March ..	1,140,900	41,800	32,400	36,803	1,197,675
April ..	1,146,900	49,500	27,700	38,230	1,063,663
May ...	1,208,000	46,900	35,400	38,967	852,797
June ..	1,124,100	49,300	33,400	37,470	526,380
July ..	1,212,400	43,800	36,200	39,110	401,547
August ...	1,220,000	44,600	37,400	39,355	270,121
September ...	1,149,000	42,800	36,900	38,300	242,692
October ...	1,102,800	40,800	29,500	35,574	197,227
November ...	1,072,300	43,100	27,900	35,743	314,369
December ...	1,177,800	42,000	35,500	37,993	614,694
Total	13,739,600				6,627,948

Average consumption for the year:

Monthly, 1,144,966 gallons.

Daily, 37,643 gallons.

## HIGH LEVEL HOURS OF SUPPLY.

1905

January	..	..	116 $\frac{1}{4}$	hours
February	..	..	105	„
March	..	..	116 $\frac{1}{4}$	„
April	..	..	112 $\frac{1}{2}$	„
May	..	..	122 $\frac{3}{4}$	„
June	..	..	112 $\frac{1}{2}$	„
July	..	..	116 $\frac{1}{4}$	„
August	..	..	116 $\frac{1}{4}$	„
September	..	..	113 $\frac{1}{4}$	„
October	..	..	116 $\frac{1}{4}$	„
November	..	..	112 $\frac{1}{2}$	„
December	..	..	122 $\frac{1}{4}$	„

## HAZELDOWN RESERVOIR.

No. 1—Depth when full	..	..	14ft. 8in.
No. 2— „ „	..	..	15ft.

				No. 1.		No. 2.	
				ft.	ins.	ft.	ins.
1905							
1st	January	..		3	7	2	8
„	February	..		6	5½	2	9½
„	March	..		5	8½	4	1
„	April	..		13	10	6	11
„	May	..		13	9	13	9
„	June	..		13	11½	14	6
„	July	..		12	5½	14	6
„	August	..		11	3½	11	11
„	September	..		6	10	7	1
„	October	..		2	7	2	7½
„	November	..		1	0½	1	10½
„	December	..		6	6	6	1

## SHALDON SUPPLY.

1905	Galls. pumped.		Hours supply.	
January	..	705,978	..	253½
February	..	688,380	..	250
March	..	772,966	..	284½
April	..	718,660	..	273¾
May	..	856,860	..	302¾
June	..	817,074	..	295¼
July	..	857,258	..	310¾
August	..	890,294	..	340
September	..	889,418	..	337
October	..	818,402	..	302¾
November	..	783,600	..	284½
December	..	760,020	..	375
Total		9,558,910		

Average consumption for the year:

Monthly, 796,576 gallons.      Daily, 26,188 gallons.

Average daily supply per head (Population 1270) = 20.62 gallons.



## RAINFALL.

Landscore Reservoir	..	..	..	Site of Gauge.
Cemetery	..	..	..	120 feet above O.D.
Shaldon Reservoir (Ringmore)	..	..	..	325   "   "
				230   "   "

Readings at Landscore and Cemetery   8 a.m.  
Readings at Shaldon                   ..       ..   11.30 a.m.

Diameter of Funnel, 8 inches.

### Landscore.

1905.			Inches.	No. of days on which ·01 or more fell.	Greatest fall in 24 hours.	
					Inches.	Date.
January	..	..	1·61	12	·81	16th
February	..	..	1·13	12	·42	25th
March	..	..	5·54	22	1·08	10th
April	..	..	3·09	18	·77	10th
May	..	..	·91	7	·53	1st
June	..	..	2·59	18	·55	5th
July	..	..	·69	5	·25	27th
August	..	..	3·30	18	1·02	15th
September	..	..	1·75	10	·60	9th
October	..	..	2·10	12	·96	31st
November	..	..	5·39	17	1·00	10th
December	..	..	·92	12	·26	27th
Total			29·02	163		

### Cemetery.

1905.			Inches.	No. of days on which ·01 or more fell.	Greatest fall in 24 hours.	
					Inches.	Date.
January	..	..	1·41	11	·75	16th
February	..	..	·94	10	·33	25th
March	..	..	4·99	23	·94	10th
April	..	..	2·87	18	·73	10th
May	..	..	·88	7	·45	1st
June	..	..	2·59	17	·54	5th
July	..	..	·62	5	·25	10th
August	..	..	3·22	18	1·16	15th
September	..	..	1·64	10	·55	5th
October	..	..	2·07	11	·92	31st
November	..	..	5·05	17	·90	10th
December	..	..	·79	9	·26	27th
Total			27·07	156		

## Shaldon (Higher Ringmore).

1905.			Inches.	No. of days on which ·01 or more fell.	Greatest fall in 24 hours	
					Inches.	Date.
January	..	..	1·67	10	·88	16th
February	..	..	1·07	12	·48	25th
March	..	..	6·35	22	1·52	10th
April	..	..	3·21	18	·82	10th
May	..	..	·93	8	·58	1st
June	..	..	2·57	18	·60	16th
July	..	..	·93	5	·43	28th
August	..	..	3·45	15	1·03	15th
September	..	..	1·89	11	·65	5th
October	..	..	2·49	11	1·22	31st
November	..	..	5·31	16	1·16	10th
December	..	..	1·10	12	·28	27th
Total	..	..	30·97	158		

CHAS. F. GETTINGS,

SURVEYOR &amp; WATER ENGINEER.



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## METEOROLOGY.

Mr. G. Rossiter, who superintends the Meteorological Station on the Den, has kindly furnished the following tabulated statements and notes for the year.

Latitude 50° 32' 49" N.

Longitude 3° 29' 28" W.

Month.	Mean Barometer 9 a.m.	Temp'ture Extremes.		Means.				Rainfall in inches.	No. of Wet Days.	Greatest fall in 24 hours: in inches.
		Highest.	Lowest.	Mean of Maxima.	Mean of Minima.	Mean.	Mean Humidity 9 a.m.			
1905										
Jan.	30.283	54.9	27.3	46.6	37.0	41.8	83	1.39	8	0.70
Feb.	30.256	55.5	31.4	49.1	40.6	44.8	83	0.92	9	0.34
Mar.	29.743	57.2	31.7	52.1	40.4	46.2	81	4.95	20	0.92
Apr.	29.856	60.7	36.4	53.4	43.6	48.5	82	2.81	16	0.73
May	30.137	69.5	40.0	61.2	46.4	53.8	63	0.75	6	0.46
June	29.950	74.3	46.2	63.7	48.3	56.0	76	2.45	16	0.58
July	30.084	81.4	49.4	72.2	56.9	64.6	71	0.78	5	0.36
Aug.	29.897	69.3	48.4	65.8	54.7	60.3	75	3.21	18	1.14
Sept.	29.989	72.2	40.2	62.6	53.0	57.8	76	1.78	9	0.66
Oct.	30.109	62.6	29.7	55.2	41.6	48.4	77	2.03	11	0.93
Nov.	29.685	55.0	25.9	50.0	37.4	43.7	81	5.04	18	0.95
Dec.	30.234	55.1	31.0	48.5	40.3	44.4	83	0.82	11	0.25
Totals								26.93	147	
Means	30.018			56.7	45.0	50.8	77			

The highest reading of the Barometer, taken at 9 a.m., was 31.040 on January 28th. The lowest reading, March 15th, 29.879.

Highest (Max.) Temperature recorded for the year, July 26th, 81.4.

Lowest (Min.) Temperature recorded for the year, November 21st, 25.9.

Mean Temperature for the year, 50.8.

Mean Temperature for past 30 years (records by W. C. Lake, M.D.) 50.6.

Lowest (Min.) Temperature recorded for the year on the grass, 22.2, November 21st.

Highest (Max.) Solar Temperature, Radiation (in Vacuo) July 11th, 147.0.

Temperature was below freezing 16 times, viz.: January 13th, 19th, 20th, 22nd, 27th, 28th, February 25th, March 4th, October 17th, 21st, 28th, November 17th, 18th, 19th, 21st, 22nd, December 12th.

Total Rainfall, 26.93; number of rainy days, 147. Thirty years Means, 33.04; number of rainy days, 176.

Heavy Rainfalls: March 10th, 0.92; August 15th, 1.14; October 31st, 0.93; November 10th, 0.95.

Snow fell (slight), February 19th, 23rd, March 9th, November 18th.



Thunder and Lightning occurred March 11th, 15th, June 26th, August 15th, 16th, September 14th, November 26th.

Exceptional Hail Storm, March 15th.

Strong Gales : January 6th, W. ; 14th, 15th, 16th, S.E. February 26th, W. March 10th, 11th, 12th, S.W. ; 24th, N.W. August 3rd, 4th, S.W. October 4th, W. November 1st, S.E. ; 26th, S.W. ; 28th, S. December 30th, 31st, E.S.E.

#### SUNSHINE RECORD.

		Hrs.	Min.
August	...	193	55
September	...	160	24
October	...	130	42
November	...	100	55
December	...	47	0

(Signed) G. ROSSITER.

The total Rainfall (26·93 inches) fell short of the 30 years' average (33·04 inches) by no less than 6·11 inches, and the number of rainy days was 29 less than the mean. December, October, July, May and February were the driest months, while in March and November only was the rainfall markedly excessive.

The new Sunshine Recorder was fixed in July, hence the absence of any figures for the earlier part of the year.

M.O.H.



